



## Powering demand and supply: Investing in utilities

The US energy landscape is being reshaped by the growing influence of AI, data centres, and the return of manufacturing. As energy demand soars, a diverse mix of energy sources, including nuclear power, natural gas and renewables, is shaping the landscape. Investment Analyst Fiona Wu delves into this dynamic environment, highlighting the exciting investment opportunities it presents, particularly for regulated utilities. She also provides insights into the companies that are effectively capturing this demand and expanding their operations.

### Can you talk us through the energy demand in the US?

The US energy demand landscape has shifted significantly over the past two years, moving from a decade of flat demand due to energy efficiency gains to an annual growth rate of 2% to 2.5%. This surge has been driven by artificial intelligence (AI), data centres and the reshoring of manufacturing. Data centres alone, housing over 5,000 facilities in the US, are expected to consume up to 12% of the country's electricity by 2028, up from just under 5% today.

Dominion Energy, a key player in this sector, serves Virginia, home to the world's largest data centre cluster and is set to increase its capacity significantly in the coming years. To give some context on the size of this; on the hottest day last December, the Australian National Electricity Market peaked at 32 gigawatts. In comparison, US data centres currently consume just under 20 gigawatts, and this number continues to grow. This rapid increase in energy demand underscores the need for extensive planning, construction and grid connectivity to meet future needs.

**You mentioned that AI is a significant driver of growth within data centers. Given the uncertainty in future demand for AI compute power, how does this affect your view on the future energy demand profile?**

The excitement about AI is reshaping the energy demand curve, sparking a debate on where it will stabilise. On one hand, AI models like DeepSeek are becoming more efficient, potentially reducing the need for data centres and electricity. On the other hand, increased energy efficiency often leads to greater usage, as seen in the mobile phone and computer markets. As AI costs potentially decrease, it could penetrate more industries, unlock new applications and drive even greater electricity demand. Given this uncertainty, we don't invest in data centres because of their unpredictable cash flows. Instead, we focus on investing in regulated utilities that provide the power to those growing sectors.

**With increased energy demand coming from data centres, there has been discussion on the supply coming from nuclear. Could you talk us through your views on nuclear power?**

Nuclear power has long been considered a reliable, clean baseload energy source, and its interest has accelerated in the past two years due to the massive energy demand from data centres and AI. Currently, nuclear accounts for about 20% of the energy mix and remains stable. While regulatory hurdles have been eased to speed up development, nuclear projects are complex, capital-intensive and often face cost overruns and delays, as seen with the Volga nuclear plant in Georgia. Small modular reactors (SMRs) offer potential flexibility, scalability and cost-effectiveness but none are operational or under construction in the US yet, with only two projects in advanced planning phases expected to be operational by 2030.

At Magellan, we focus on investment in regulated utilities with nuclear assets, which can provide reliable authorised returns, rather than merchant power companies exposed to energy price volatility. This approach aims to capitalise on the opportunities within the nuclear sector while managing the associated risks.

## Could you talk us through the broader energy mix and where that's at the moment?

The current US energy mix consists of 40% natural gas, 25% renewables, 15% coal and 20% nuclear. Natural gas and renewables have grown to replace coal plants, while nuclear has remained stable. Looking ahead, President Trump's executive orders on energy project permits and funding could affect the energy landscape. Despite various headlines, natural gas is expected to remain the dominant energy source. Renewables have a mixed outlook: offshore wind may face challenges under Trump's administration but solar is likely to continue growing due to its cost-effectiveness and rapid deployment. Last year, a record 30 gigawatts of utility-scale solar capacity was added, accounting for over 60% of new additions. The Energy Information Administration forecasts another 30-33 gigawatts of solar capacity will be added this year. Interestingly, most Republican states benefit from renewable development, so major rollbacks on renewable tax credits are not expected. In the near to medium term, natural gas and renewables are anticipated to remain the primary energy sources to meet the growing demand.

## What are your broader thoughts on investing in the US utilities sector?

The demand tailwinds are highly beneficial for regulated utilities, which have historically focused on greater reliability and replacing ageing infrastructure. Looking ahead, the expansion to meet massive demand will require utility companies to invest in three key areas: generation (producing power), transmission (moving power long distances) and distribution (delivering power to homes and businesses). These investments present opportunities for regulated utilities to achieve predictable cash flows and reliable returns. For every dollar invested in capital expenditures, these companies can expect to return around nine to ten cents, making it a dependable investment.


## Could you share with us a company that you're particularly excited about right now?

Xcel Energy is one of our key infrastructure holdings. It was among the first utilities to announce an earnings upgrade, increasing its capital expenditure guidance by around 15% and upgrading its earnings outlook in the third quarter of last year. This growth is driven by the doubling demand in its service jurisdictions over the next five years. Additionally, Xcel Energy's network includes large users like data centres, which help spread the fixed costs of the grid and keep customer bills manageable. This is crucial for regulatory approval of returns and rate increases. We're still in the early stage of major transformation in US energy demand and that creates massive investment opportunities for the US.

By **Fiona Wu, Investment Analyst**

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